

NOVEMBER/DECEMBER 2024

**23UEMB12 — BASIC AND CLINICAL  
BIOCHEMISTRY (ELECTIVE)**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are reducing sugars? Give an example.
2. Differentiate fat and wax.
3. Brief the term isoelectric point.
4. Give any two examples for basic amino acids.
5. Define glycosuria.
6. Give the normal levels of serum cholesterol and Triglycerides.
7. Quote the symptoms of albinism.
8. Write the enzymes defect in tyrosinemia and PKU.
9. Expand the terms LDH and CPK.
10. List the functions of liver.





SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Discuss the structure and functions of starch.

Or

- (b) Reason why? Lactose is a reducing sugar whereas sucrose is a non-reducing sugar in disaccharides.

12. (a) Explain the secondary structure of proteins.

Or

- (b) Brief the electrochemical behavior of amino acids.

13. (a) Explain the cause, symptoms, complications and control of hypercholesterolemia.

Or

- (b) Give an account on hypoglycemia.

14. (a) Quote the defective enzyme, symptoms and treatment for alkaptonuria.

Or

- (b) Give an account on phenylketonuria.

15. (a) How will you assess the function of liver using serum AST and ALT?

Or

- (b) What are diagnostic enzymes? Explain the importance of lactate dehydrogenase in diagnosis.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Classify the carbohydrates with example.

17. Discuss the classification of amino acids with example.

18. Give an account on diabetes mellitus.

19. Explain the term metabolic disorder with two examples in amino acid metabolism.

20. Discuss the assessment of liver function with example.

